office of energy security
Minnesota Department of Commerce

Energy Facility Permitting
85 7th Place East, Suite 500
St. Paul, Minnesota 55101-2198
1.800.657.3794 / 651.296.4026
FAX 651.297.7891 TTY 651.297.3067
http://energyfacilities.puc.state.mn.us

March 31, 2011

TO: William Grant, Director
Office of Energy Security
THROUGH: Deborah Pile, Manager DRP
FROM: William Cole Storm, Staff
OES EFP (Tel: 651-296-9535)
RE: Scoping Decision
Xcel Energy Glencoe - Waconia HVTL Project
PUC Docket Number: E002/TL-10-249
PUC Docket Number: E002/CN-09-1390

ACTION REQUIRED: Signature of the Director on the attached Order, "Environmental Assessment Scoping Decision." Once signed, the Department of Commerce (DOC) Office of Energy Security (OES) Energy Facility Permitting (EFP) staff will mail the notice of the order to interested parties.

BACKGROUND: On November 30, 2010, Xcel Energy and the city of Glencoe (Applicants) submitted an application to the Commission for a certificate of need (CON) for the 115 kV transmission line upgrades to the Glencoe-Waconia 69 kV system. The docket number for the CON proceedings is E002/CN-09-1390. The Commission released an order on February 1, 2011, finding the CON application to be complete and initiating the informal review process.

On December 10, 2010, Xcel Energy submitted a high voltage transmission line (HVTL) Route Permit application to the Commission for the proposed transmission line upgrades to the 69 kV Glencoe to Waconia system. The application was submitted pursuant to the provisions of the Alternative Permitting Process outlined in Minnesota Rules7850.2800, subpart 2 and 7850.2900. The docket number for the route proceedings is E002/TL-10-249. The Commission released an order on January 14, 2011, finding the route permit application to be complete and initiating the alternative review process.

Minnesota Statute 216B.243, subdivision 2, states that no Large Energy Facility shall be sited or constructed in Minnesota without issuance of a *Certificate of Need* by the Commission. The 115 kV single circuit and 115/69 kV double circuit transmission lines proposed for the Glencoe-Waconia project is a "large energy facility" because it has a capacity in excess of 100 kV and is more than 10 miles long.

Minnesota Statutes Section 216E.03, subd. 2, provides that no person may construct a high voltage transmission line (HVTL) without a *HVTL Route Permit* granted from the Commission. An HVTL is defined as a transmission line of 100 kV or more and greater than 1,500 feet in length (Minnesota Statutes Section 216E.01, subd. 4). The proposed transmission lines are HVTLs and therefore a route permit is required prior to construction.

OES EFP staff is responsible for conducting the environmental review for CON applications submitted to the Commission (Minn. Rules 7849.1200). The environmental report (ER) is completed prior to the public hearing. An ER examines the potential human and environmental impacts of a proposed project, relative to size, type, timing and system configuration, and alternatives to the project, as well as potential mitigative measures.

OES EFP staff is also responsible for conducting the environmental review for route permit applications to the Commission (Minn. Rules 7850.3700). Environmental review for a project of this size requires the preparation of an environmental assessment (EA). An EA examines the potential human and environmental impacts of a proposed project, alternative routes for the project, and potential mitigative measures.

As two concurrent environmental reviews are required – one for the CON application and one for the route permit application – OES EFP staff has elected to combine the environmental review for the two applications (Minn. Rules 7849.1900). Thus, an environmental assessment (EA) will be prepared to meet the requirements of both review processes.

After completion of the EA, a public hearing will be held. The hearing will be presided over by an administrative law judge (ALJ) from the Office of Administrative Hearings. Members of the public will have an opportunity to speak at the hearing, present evidence, ask questions, and submit comments. Notice of the public hearing will be published in local newspapers and mailed to persons who register their names on the OES project mailing list.

Upon completion of the environmental review and hearing process, the records compiled for each proceeding (CON, route permit) will be presented to the Commission for final decisions.

PROJECT DESCRIPTION. The project is located in McLeod and Carver counties, near the cities of Glencoe, Plato, Norwood Young America, and Cologne. A Route Permit is being requested to construct approximately 0.9 miles of new 115 kilovolt (kV) transmission line, and 1.9 miles of new 69 kV transmission line that is capable of operating as 115/69 kV double circuit line and to upgrade approximately 20.2 miles of 69 kV transmission line to 115 kV (double circuit 115/69 kV capacity) near the cities of Glencoe, Plato, Norwood Young America and Waconia located southwest of the Twin Cities metro area. The project is approximately 23 miles in total.

The Applicants propose to construct the following facilities for which a HVTL Route Permit is required:

- Construct a new 115 kV Diamond Substation in Glencoe and approximately 5 miles of new 115 kV transmission line between the existing Armstrong Substation and the new Diamond Substation.
- Upgrade approximately 4 miles of 69 kV transmission line to 115/69 kV double circuit from the proposed Diamond Substation to the existing Plato Substation.

- Expand the existing Plato Substation to upgrade the 69 kV distribution load to 115 kV, and to install a capacitor bank on the 69 kV transmission line.
- Upgrade approximately 10 miles of 69 kV transmission line to 115 kV capacity between the Plato Substation, the Young America Substation and the West Waconia Substation.
- Construct approximately 1 mile of new 115 kV transmission line along Highway 5 on the west side of the city of Norwood Young America. This new segment is needed to avoid having to build the 115 kV line into the developed areas of Norwood Young America.
- Upgrade approximately 1 mile of existing 69 kV transmission to 115 kV from the existing West Waconia Substation along Highway 5.
- Construct approximately 2 miles of new 69 kV transmission line from Highway 5 to the existing Augusta 69 kV transmission line. This section would be built to double circuit standard to accommodate a future 115 kV transmission line, along with the proposed 69 kV line.
- Upgrade approximately 7 miles of existing 69 kV transmission line to 115 kV capacity from the Waconia Tap to just short of the Augusta Substation.

The need for the project was first identified in the *Glencoe Area Transmission Study*, conducted in 2002. That study identified the need for a 115 kV transmission line in the McLeod – Glencoe – West Waconia area. The first phase, the McLeod – Glencoe segment, was placed in-service in 2006. The current HVTL Route Permit Application addresses the second phase of the plan, which is the Glencoe – West Waconia segment. The Glencoe – West Waconia segment is designed to maintain reliable service to the city of Glencoe during loss of the McLeod – Glencoe line. The Applicant states that without the Glencoe – West Waconia line, under certain conditions customer equipment, such as process controls, motor drive controls and automated machines, could be damaged due to low voltages. Depending on the duration of a low voltage condition, equipment such as electronic power supplies could also malfunction or fail when output voltage drops below certain levels. Without the proposed transmission upgrades, low voltage conditions will worsen as the area experiences continued growth and development.

SCOPING PROCESS

On February 1, 2011, the OES EFP sent notice of the place, date and times of the Initial Public Information and Scoping meeting to those persons on the General List maintained by the PUC, the agency technical representatives list and the project contact list. Additionally, on February 4, 2011, Xcel Energy mailed the notice to those persons on their property owners list and local unit of government list.

Notice of the public meeting was also published in the local newspapers.

On Tuesday, March 1, 2011, the Office of Energy Security (OES) Energy Facility Permitting staff (EFP) held two public information/scoping meetings at the Clay Community Building in Norwood Young America. The meetings included two sessions, one starting at 2:00 pm and

another starting at 6:00 pm. The purpose of the meeting was to provide information to the public about the proposed project, to answer questions, and to allow the public an opportunity to suggest alternatives and impacts that should be considered during preparation of the environmental review document. Written comments were due no later than Wednesday, March 23, 2011.

Approximately 35 people attended the public information and scoping meetings; 13 individuals took the opportunity to speak on the record. A court reporter was present to document oral statements. Ten written comments were received.

A variety of questions were asked and answered during the oral discussion; topics included: specifics on which lines and poles will be removed, and design/construction of any new poles; specifics on the proposed alignment; the concepts of route width and right-of-way (ROW) width; sources of power generation for this project; and timeline and milestones of the application review process.

The major areas of concern for scoping expressed during the public comment period included: health and safety issues, property values, compensation for easements, and flexibility in siting the final alignment.

These items and issues, along with the typical HVTL routing impacts, have been incorporated into the proposed Order on the Environmental Assessment Scoping Decision.

Alternative routes, alternative route segments and modifications to the Xcel Energy's proposed alignment were discussed during the scoping meeting and in comments received during the scoping comment period.

Maiser alternative route segment

Several residences located along the northwest shores of Rice Lake requested that an *alternative route segment* be considered in a portion of the proposed HVTL route (Applicant's Segment #4). The current proposal for the Applicant's Segment #4 consists of a rebuild of approximately 3.2 miles of existing 69 kV transmission line (Line #0735) to a 115 kV transmission line between the intersection of State Highway 5 and 5th Avenue/Tacoma Avenue to the intersection of State Highway 5 and County Road 51. The proposed route is 200 feet wide, centered on the existing alignment of the 69 kV line that extends from the southwest (State Highway 5 and 5th Avenue/Tacoma Avenue intersection) to the northeast (State Highway 5 and County Road 51 intersection) south of State Highway 5.

The Maiser alternative route segment amends a small section of the Applicant's proposed route by locating the route along the north side of State Highway 5, beginning from just west of Rome Avenue to the West Waconia Substation, a distance of approximately 1 ¼ miles. This would allow the new 115 kV HVTL to run along the north side of State Highway 5, possibly as a double-circuit with the existing Great River Energy (GRE) 115 kV HVTL.

The stated purpose of this alternative route segment is to reduce the impact to several lakeshore lots that are squeezed between State Highway 5 and the normal high water mark of Rice Lake.

The EFP staff recommends that this alternative route segment be carried forward into the scope of the EA.

Maiser alternative alignment

The residences located along the northwest shores of Rice Lake also requested that an *alternative alignment* be considered as an additional option to their request for an alternative route segment.

The Maiser alternative alignment would require that the proposed route width be extended north, approximately 100 feet to the northern edge of State Highway 5. This expansion of the route to the north would allow the proposed alignment to be moved north, away from the residences, into/along the southern ROW of State Highway 5.

The stated purpose of this alternative alignment is to reduce the impact to several lakeshore lots that are squeezed between State Highway 5 and the normal high water mark of Rice Lake.

The EFP staff recommends that this alternative alignment be evaluated in the EA.

Waldron alternative route segment

A residence located along the County Road 34 requested that an *alternative route segment* be considered in a portion of the proposed HVTL route (Applicant's Segment #2). The current proposal for the Applicant's Segment #2 consists of a rebuild of approximately 6.4 miles of existing 69 kV transmission line (Line #0771) to a 115 kV transmission line between the Plato Substation and the intersection of State Highway 25/5 and County Highway 34. The proposed route proceeds east from the substation along the north side of McLeod County Road 3 (122nd Street), which becomes Carver County Road 34. The route crosses to the south side of County Road 3 at Zebra Avenue and continues east on the south side of the county road. At Urban Avenue, the route deviates south from the County Road 34 right-of-way, crossing agricultural land and a farmstead. This deviation follows the existing 69 kV transmission line and an abandoned section of old County Road 34. The route rejoins the current County Road 34 just east of the intersection of County Road 33, where it crosses to the north side of County Road 34 and continues to State Highway 25/5.

The Waldron alternative route segment amends a small section of the Applicant's proposed route by continuing to follow the current County Road 34, eliminating the deviation to the south, between Urban Avenue and State Highway 25/5.

The stated purpose of this alternative route segment is to realign the HVTL with the current ROW of County Road 34, and thereby reduce the impact to several parcels that are currently divided by the existing 69 kV transmission ROW.

The EFP staff recommends that this alternative route segment be carried forward into the scope of the EA.

Kramer alternative route (Hwy 212)

A request was submitted for an evaluation of an *alternative route* that would follow the US Highway 212 ROW from the proposed Diamond Substation to the Augusta Substation. Connection from this line to the Diamond Substation would be along Dairy Avenue and the connection between the Augusta Substation and the new line would be along County Road 43.

The stated purpose of this alternative route is to reduce construction and maintenance costs, allow better access for maintaining the transmission line, reduce the length of the HVTL, and to move the ROW to less populated areas.

Kramer alternative route segment (partial Hwy 212)

A request was submitted for an evaluation of an *alternative route segment* that would follow the US Highway 212 ROW from the Diamond Substation east to the intersection with State Highway 25. The new line would then follow the State Highway 25 ROW northeast approximately one mile, where it would join and continue along the Xcel Energy's proposed HVTL route to the Augusta Substation. Connection from this alternative line to the Diamond Substation would be along Dairy Avenue.

The stated purpose of this alternative route is to reduce construction and maintenance costs, allow better access for maintaining the transmission line, reduce the length of the HVTL, and to move the ROW to less populated areas.

At the request of EFP staff, Xcel Energy performed (http://energyfacilities.puc.state.mn.us/admin/resource.html?Id=31976) preliminary engineering analysis on a variety of potential routes that utilize the Highway 212 corridor, including the two Kramer alternatives. This request was made to determine whether these alternatives warranted further consideration.

Xcel Energy's proposed HVTL route passes through several existing load serving substations (Plato, Young America, Augusta); these connections are required to satisfy the stated need for the project, plus minimizing the potential need for new transmission additions in the future. The Highway 212 alternatives would result in the new 115 kV line being further away from these loads centers, thereby reducing the future utility of the line.

Ball-park estimates put the Highway 212 alternatives between $0.3 and $5.2 million more expensive than the proposed HVTL route.

The proposed HVTL route primarily follows existing transmission line corridors and requires acquisition of only about 2.85 miles of new right-of-way. In contrast, depending on the configuration, the Highway 212 alternatives would require acquisition of between 12 and 21

miles of new transmission line right-of-way. This new right-of-way will result in impacts to new landowners and environmental resources.

In addition, while new landowners will be impacted by the new right-of-way along Highway 212, landowners along the existing 69 kV transmission line will still have visual impacts as portions of this line will still need to be rebuilt and other portions will remain in place.

Preliminary environmental assessment data indicates that potential environmental and cultural resource issues are comparable for the proposed HVTL route and the Highway 212 alternatives.

The initial assessment indicates that the distribution of wetlands along the proposed route and the Highway 212 alternatives are similar in the quantity and quality of potential wetland impacts. However, wetland crossings along the Highway 212 alternatives would constitute new wetland impacts and thus would add to the overall quantity of wetland impacts because the wetland impacts of the proposed HVTL route would not be eliminated.

Similarly, while the distribution of cultural resource sites is comparable between the proposed HVTL route and the Highway 212 alternatives, the Highway 212 alternatives would likely cross lands that have not been previously disturbed.

The Highway 212 alternatives do not meet Xcel Energy's stated current or potential future local needs of the area, will create new impacts without eliminating the need for the current 69 kV line and cost more than the proposed transmission line upgrade. The EFP staff recommends that the Highway 212 alternatives not be carried forward into the scope of the EA.

There was no Advisory Task Force established for this routing docket.

Relevant documents and other information on this docket can be viewed at the PUC Energy Facilities website:

http://energyfacilities.puc.state.mn.us/Docket.html?Id=19981

CC: Deb Pile, Supervisor

STATE OF MINNESOTA

OFFICE OF ENERGY SECURITY

In the Matter of Xcel Energy's Application for a HVTL Route Permit for the proposed Glencoe-Waconia HVTL Upgrade Project.	**EA SCOPING DECISION PUC Docket No. E002/CN-09-1390 PUC Docket No. E002/TL-10-249**

The above-entitled matter came before the Director of the Office of Energy Security (OES) for a decision on the scope of the Environmental Assessment (EA) to be prepared on the proposed Glencoe-Waconia HVTL Upgrade Project.

Having reviewed the matter, consulted with OES Energy Facility Permitting staff, and in accordance with Minnesota Rule 7850.3700, I hereby make the following Scoping Decision.

I. SUMMARY

On November 30, 2010, Xcel Energy submitted an application to the Commission for a certificate of need (CON) for the 115 kV transmission line upgrades to the Glencoe-Waconia 69 kV system. The docket number for the CON proceedings is E002/CN-09-1390. The Commission released an order on February 1, 2011, finding the CON application to be complete and initiating the informal review process.

On December 10, 2010, Xcel Energy submitted a high voltage transmission line (HVTL) Route Permit application to the Commission for the proposed transmission line upgrades to the 69 kV Glencoe to Waconia system. The application was submitted pursuant to the provisions of the Alternative Permitting Process outlined in Minnesota Rules7850.2800, subpart 2 and 7850.2900. The docket number for the route proceedings is E002/TL-10-249. The Commission released an order on January 14, 2011, finding the route permit application to be complete and initiating the alternative review process.

The project is located in McLeod and Carver counties, near the cities of Glencoe, Plato, Norwood Young America, and Cologne. A Route Permit is being requested to construct approximately 0.9 miles of new 115 kilovolt (kV) transmission line, 1.9 miles of new 69 kV transmission line that is capable of operating as 115/69 kV double circuit line and upgrade approximately 20.2 miles of 69 kV transmission line to 115 kV (double circuit 115/69 kV capacity) near the cities of Glencoe, Plato, Norwood Young America and Waconia located southwest of the Twin Cities metro area. The project is approximately 23 miles in total.

II. MATTERS TO BE ADDRESSED IN THE EA

OES EFP staff is responsible for conducting the environmental review for CON applications submitted to the Commission (Minn. Rules 7849.1200) and the environmental review for route permit application to the Commission (Minn. Rules 7850.3700).

As two concurrent environmental reviews are required – one for the CON application and one for the route permit application – OES has elected to combine the environmental review for the two applications (Minn. Rules 7849.1900). Thus, an environmental assessment (EA) will be prepared to meet the requirements of both review processes.

The EA on the proposed Glencoe-Waconia HVTL Upgrade project will address and provide information on the following matters:

ABSTRACT
LIST OF PREPARERS
SUMMARY

1.0 PROJECT DESCRIPTION

Purpose of the Transmission Line
- Connected Actions – Glencoe Power and Light

Project Location
Route Description
Substation Description
- Plato
- West Waconia

Route Width
Rights-of-Way Requirements
Project Cost
Sources of Information

2.0 REGULATORY FRAMEWORK

CON Process and Procedures
HVTL Route Permit Process
Environmental Review Process

3.0 ENGINEERING AND OPERATION DESIGN

Transmission Line Conductors
Transmission Line Structures
Substations

4.0 CONSTRUCTION

Transmission Line and Structures
Substations
Property/Right-of-Way Acquisition
Cleanup and Restoration
Damage Compensation
Maintenance

5.0 AFFECTED ENVIRONMENT, POTENTIAL IMPACTS, AND MITIGATIVE MEASURES

The EA will include a discussion of the folowing human and environmental resources potentially impacted by the project and its alternatives. Potential impacts, both positive and negative, of the proposed project and each alternative considered will be described. Based on the impacts identified, the EA will describe mitigative measures that could reasonably be implemented to reduce or eliminate the identified impacts. The EA will describe any unavoidable impacts resulting from implementation of the proposed project.

Environmental Setting
Socioeconomic Setting
Human Settlement
- Displacement

Scoping Decision

- Noise
  - HVTL & Substation
  - Construction Activities
- Aesthetics
  - Visual and View-shed
  - Lighting Requirements
- Proximity to Structures
  - Residences
  - Businesses
  - Schools/Daycares
  - Hospitals
  - Cemeteries
  - Displacement
  - Existing Utilities
- Public Health and Safety
  - Electric and Magnetic Fields
  - Implantable Medical Devices
  - Stray Voltage
    - Leonard Dairy Farm
    - Buesgens Farm
  - Tower Collapse
  - Security of Facilities, placarding, emergency provisions
- Recreation
  - Parks (city, county, state, and federal)
  - Trails (walking, bike)
- Transportation and Public Services
  - Emergency Services
  - Airports
  - Highways, Roads and Bike Paths
  - Traffic (during construction)
- Interference
  - Radio and Television (digital and satellite)
  - Internet (Wi-Fi)
  - Cellular Phone
  - Current and Future Infrastructure
  - Emergency vehicle pre-emption devices
- Archaeological and Historic Resources
- Zoning and Compatibility/Federal, State and Local Government Planning
- Land-Based Economies
  - Agriculture
  - Forestry
- Property Values
  - Residential
  - Industrial
  - Agriculture
- Air Quality (As it pertains specifically to this transmission line only.)

Henshaw Effect
Construction (heavy equipment, dust)
Natural Resources
Surface Water
Lakes
Surface/stormwater Flows
Groundwater
Dewatering Requirements
Wetlands
Floodplains
State Wildlife Management Areas/Scientific Natural Areas
National Wildlife Refuge/Waterfowl Production Areas
Flora
Fauna
Rare and Unique Natural Resources/Critical Habitat
Environmental Justice

6.0 ALTERNATIVES TO THE PROPOSED HVTL

No-build Alternative
Demand Side Management
Purchase Power
Long term Purchase Power
Short term Purchase Power
Alternative Fuels
Fossil Fuel Technologies
Renewable Resource Technologies
Up-grading Existing Facilities
New Generation

7.0 ALTERNATIVE ROUTES, ROUTES SEGMENTS and SUBSTATION LOCATIONS

The EA will identify and evaluate alternative routes and route segments to the proposed project. Two alternatives suggested through public comment will be evaluated in the EA and are listed below.

Maiser Alternative Route Segment (north side of State Hwy 5, west of Rome Avenue to Waconia Substation)

Waldron Alternative Route Segment (eliminates the southern deviation between Urban Avenue and State Highway 25/5 along County Road 34)

8.0 REJECTED ALTERNATIVE ROUTES

The EA will include a discussion of route alternatives that were evaluated by the applicant and through the scoping process and rejected.

9.0 ALIGNMENT ALTERNATIVES

Alignment alternatives are alternatives or options for placement of the ROW that fall within the applicants' requested route widths and generally entail site specific concerns such as building on one side of the road or the other, avoiding tree groves, and avoiding recreational areas or environmentally sensitive areas. The following specific alignment alternative will be evaluated:

Maiser Alignment (south side State Hwy 5 ROW and north of old railroad ROW)

9.0 REQUIRED PERMITS AND APPROVALS

The EA will include a list of permits that will be required for the project.

III ISSUES OUTSIDE THE SCOPE OF THE EA

The following issues will not be considered or evaluated in the EA:

- Any route or substation alternatives not specifically identified in this scoping decision
- The impacts of specific energy sources, such as carbon outputs from coal-generated facilities.
- The manner in which landowners are paid for transmission rights-of-way easements.

IV SCHEDULE

Following is the anticipated schedule: June, 2011 – EA Available

The above outline is not intended to serve as a "Table of Contents" for the EA document, and as such, the organization (i.e., structure of the document) of the information and the data may not be similar to that appearing in the EA.

Signed this 1st day of April, 2011

STATE OF MINNESOTA
OFFICE OF ENERGY SECURITY

William Grant, Director
Office of Energy Security